SYNERGY FIELD SERVICES

COMPRESSION YOU NEED AT THE PRICES YOU WANT.

A.I.D. 200 HP Electric Motor/ Ariel JGA-2 (3 Stage)

- **Packager:** Exterran
- **Year Built:** 2011
- **Driver:** A.I.D. Electric Motor (460V, 3 Ph., C1D2, TEFC, Inverter Duty, VFD Ready)
- **HP Rating:** 200 HP @ 1800 RPM
- **Frame:** Ariel JGA-2
- **Stages:** 3
- **Cylinder Configuration:** 7.5" JG (330 psi), 5.125" P10-CE (1,200 psi), 3.25" P11-CE (1,800 psi)
- **Cooler:** R&R UI-60-8N w/ new AXH Gas sections built 2011
- MAWP- IC1: 645 psi
- MAWP- IC 2: 1,287 psi
- MAWP- AC: 1,470 psi
- **Current Condition:**
- Driver: NEW A.I.D. motor with 3 year warranty
- Compressor: Overhauled and made like new with new surplus tandem cylinders, piping on tandem side, divider blocks, lube pump, and MUCH more.
- Cooler: Overhauled and made like new with complete re-tube performed by Roughneck Radiator, all new bearings throughout, new sheet metal, added supports, NEW 15 HP Toshiba electric VFD motor, pedestal, guard, belts, etc.
- Unit: Made as new and ready to work while offering zero lead time and approx. 40% savings over new cost!

See below:

- Unit Data Sheet
- Ariel Performance Run:
  - 50 to 1,250 psi= 952 MCFD Using 187 HP
- Photos

SYNERGY FIELD SERVICES
COMPRESSION YOU NEED AT THE PRICES YOU WANT.

SYNERGY UNIT #:	210809			Engine	Recip Compressor			
DATE BUILT:	2011 (Rebuilt in 2021- Synergy)			MODEL: Advanced Industrial Devices Electric Motor (TM2004TPK)	MODEL:	ARIEL JGA-2		
				SERIAL NUMBER: OD19092700112001	S/N	F-2521		
MANUFACTURER: Exterran				COMP.RATIO:	TOTAL MAX ROD LOAD	20,000 lbs.		
MANUFACTURE NUMBER:				MAX OEM HP: 200	MAX RPM	1800		
TYPE SERVICE (H2S,AMINE,NG,ETC.):				MAX RPM: 1800	THROWS	2		
OFFSHORE?:	No	CNCRT FLLD:	Yes	FUEL TYPE: Electric (460V, 3 Ph, C1D2, TEFC, Inverter Duty)	STROKE	3		
					STAGES	3		

CYLINDERS MANUFACTURER: Ariel

Throw	BORE	MODEL/CLASS	STAGE	VVCP (Y/N)	MAWP PSI	SERIAL NUMBER	DATE BUILT
1	7.500	JG	1	Y	330	C-06318	
2	5.125	P10-HE	2	N	1,200	C-154975	2013 (Not installed until 2021)
3	3.250	P11-CE	3	Y	1,800	C-154974	2013 (Not installed until 2021)
4							

SCRUBBERS MANUFACTURER: Holt Manufacturing

STAGE	DIAMETER (IN)	LENGTH (IN)	CODED-NB#	INLET FLANGES QTY	INLET FLANGES DIA/PSI	INLET FLANGES STYLE	OUTLET FLANGES QTY	OUTLET FLANGES DIA/PSI	OUTLET FLANGES STYLE	MAWP PSI	TEMPERATURES MIN	TEMPERATURES MAX	SERIAL NUMBER	DATE BUILT
1	14	42		1	4"600	RF	1	4"600	RF	500	-20	100	338	1981 (Repaired in 2011- Exterran)
2	12	42		1	4"600	RF	1	4"600	RF	1000	-20	100	370	1981 (Repaired in 2011- Exterran)
3	10	42		1	3"600	RF	1	3"600	RF	1000	-20	100	397	1981 (Repaired in 2011- Exterran)

PULSATION BOTTLES MANUFACTURER: NA- Fat Pipe Only

SUCT/DISC	STAGE	DIA X LGTH (IN)	CODED-NB#	INLET FLANGES QTY	INLET FLANGES DIA/PSI	INLET FLANGES STYLE	OUTLET FLANGES QTY	OUTLET FLANGES DIA/PSI	OUTLET FLANGES STYLE	MAWP PSI	TEMPERATURES MIN	TEMPERATURES MAX	SERIAL NUMBER	DATE BUILT

COOLER MANUFACTURER: R&R w/ AXH Gas Sections | **MODEL:** UI-60-8N | **S/N:** Cooler: L-562, Gas Sections: 110712 | **BELT SIZE:** (2) B78 | **DATE BUILT:** Cooler: 1981, Gas Sections: 2011, Rebuilt: 2021- Synergy Field Services, Retube: 2021- Roughneck Radiator

SECTION SERV.	STAGE	TUBES	S/N	INLET FLANGES QTY	INLET FLANGES DIA/PSI	INLET FLANGES STYLE	OUTLET FLANGES QTY	OUTLET FLANGES DIA/PSI	OUTLET FLANGES STYLE	MAWP PSI	CODED-NB#	MAX TEMP	LOUVERS	TUBE MATERIAL
	1	(Qty. 30) 3/4"	110712.1	1	3" 300	RF	1	3" 300	RF	645	70944	350	Yes	
	2	(Qty. 33) 5/8"	110712.2	1	2" 600	RF	1	2" 600	RF	1,200	70945	350	Yes	
	3	(Qty. 30) 5/8"	110712.3	1	2" 900	RF	1	2" 900	RF	1,470	70946	350	Yes	

Relief Valves	Inlet Relief Valve	1st Stage Disharge	2nd Stage Disharge	3rd Stage Discharge	Blowcase	Packing Vent/Drains	Purge Gas	Fireloop	Start	Fuel Filter	1st Cut Fuel	2nd Cut Fuel
Size (in/out)												
Set pressure												
Orfice size												
Manufacture												
Serial #												

SHIPPING & MISC (Attach comments) DOES COOLER SHIP ON SKID? YES

SKID WEIGHT (lbs)	Est. 35,000	LENGTH (ft.):	24'	WIDTH (ft.):	8' 6"	HEIGHT (ft.): 9'
COOLER WEIGHT (lbs)	INCLUDED	LENGTH (ft.):		WIDTH (ft.):		HEIGHT (ft.):

PKG CONNECTIONS	SUCTION:		DISCHARGE:		OIL IN		OIL OUT		LP DRAIN		HP DRAIN		VENT	
	DIA/PSI	STYLE	DIA/PSI	STYLE	DIA/PSI	STYLE	DIA/PSI	STYLE	DIA/PSI	STYLE	DIA/PSI	STYLE	DIA/PSI	STYLE
	4" 600	RF	2" 900	RF										

NOTES: Complete refurb and electric motor conversion completed by Synergy Field Services in August of 2021. Electric motors are new with 3 year warranties on them. Cooler retube (Roughneck Radiator) has a 1 year warranty.

Ariel Performance

Company:	Synergy Field Services, LLC	Customer:	Fleet
Quote:		Inquiry:	
7.7.6.0 Case 1:		Project:	

Compressor Data:

Elevation,ft:	3000.00	Barmtr,psia:	13.153	Ambient,F:	105.00
Frame:	JGA/2	Stroke, in:	3.00	Rod Dia, in:	1.125
Max RL Tot, lbf:	20000	Max RL Tens, lbf:	10000	Max RL Comp, lbf:	11000
Rated RPM:	1800	Rated BHP:	280.0	Rated PS FPM:	900.0
Calc RPM:	1800.0	BHP:	187	Calc PS FPM:	900.0

Driver Data:

Type:	*VFD*
Mfg:	
Model:	60 Hz - 4 Po
BHP:	200
Avail:	200

Services	**Service 1**		
Gas Model	VMG-APRNGL2		
Stage Data:	**1 (SG)**	**2**	**3**
Target Flow, MMSCFD	1.000	1.000	1.000
Flow Calc, MMSCFD	0.957	0.957	0.952
BHP per Stage	76.1	57.1	48.3
Specific Gravity	0.6500	0.6499	0.6476
Ratio of Sp Ht (N)	1.2473	1.2515	1.2687
Comp Suct (Zs)	0.9876	0.9660	0.9201
Comp Disch (Zd)	0.9824	0.9609	0.9249
Pres Suct Line, psig	50.00	N/A	N/A
Pres Suct Flg, psig	49.37	214.53	554.73
Pres Disch Flg, psig	219.53	564.00	1262.63
Pres Disch Line, psig	N/A	N/A	1250.00
Pres Ratio F/F	3.722	2.535	2.247
Temp Suct, F	80.00	125.00	125.00
Temp Clr Disch, F	125.00	125.00	125.00
Cylinder Data:	**Throw 1**	**Throw 2**	**Throw 2**
Cyl Model	*7-1/2JG*	5-1/8P-HE:10	3-1/4P-CE:11
Cyl Bore, in	7.500	5.125	3.250
Cyl RDP (API), psig	300.0	1090.9	1636.4
Cyl MAWP, psig	330.0	1200.0	1800.0
Cyl Action	DBL	HE	CE
Cyl Disp, CFM	273.0	64.5	22.8
Pres Suct Intl, psig	45.49	200.24	514.01
Temp Suct Intl, F	87	129	129
Pres Disch Intl, psig	232.54	598.75	1336.80
Temp Disch Intl, F	266	268	258
HE Suct Gas Vel, FPM	8140	8320	0
HE Disch Gas Vel, FPM	7408	7529	N/A
HE Spcrs Used/Max	0/4	0/1	N/A
HE Vol Pkt Avail	1.49+62.66	1.01+45.66	N/A
Vol Pkt Used	0.00 (V) %	0.00 (V) %	N/A %
HE Min Clr, %	16.65	18.92	N/A
HE Total Clr, %	18.14	19.92	N/A
CE Suct Gas Vel, FPM	7957	0	8688
CE Disch Gas Vel, FPM	7242	N/A	7222
CE Spcrs Used/Max	0/4	N/A	0/2
CE Min Clr, %	17.47	N/A	19.76
CE Total Clr, %	17.47	N/A	19.76
Suct Vol Eff HE/CE, %	58.1/59.4	72.4/N/A	N/A/77.7
Disch Event HE/CE, ms	4.6/5.5	6.2/N/A	N/A/7.9
Suct Pseudo-Q HE/CE	6.6/6.4	6.0/N/A	N/A/3.4
Gas Rod Ld Comp, %	75.6 C	54.1 C	54.1 C
Gas Rod Ld Tens, %	80.2 T	82.8 T	82.8 T
Gas Rod Ld Total, %	81.7	71.1	71.1
Xhd Pin Deg/%Rvrsl lbf	166/97.6	118/68.4	118/68.4
Flow Calc, MMSCFD	0.957	0.957	0.952

FW MURPHY

07634
TRAILER